Available online at www.sciencedirect.com

ScienceDirect

Procedia Computer Science 59 (2015) 4

Procedia Computer Science

International Conference on Computer Science and Computational Intelligence (ICCSCI 2015)

Keynote III

Hisar Maruli Manurung

Faculty of Computer Studies, University of Indonesia,Indonesia
Email: maruli@cs.ui.ac.id

About the speaker

Ruli Manurung is a full-time faculty member at the Faculty of Computer Science, Universitas Indonesia, where he currently serves as the Coordinator for the various computer science study programs. His research interests vary between natural language processing, computational creativity, artificial intelligence, evolutionary computation, and machine learning. He has co-authored more than 80 peer-reviewed journal papers, book chapters, and conference papers, winning Best Paper awards at several international conferences. He has also held 11 research grants, both international and national in scope. He obtained his Ph.D from the University of Edinburgh in 2004 for his work on the automatic generation of poetry. From 2003 to 2006 he was a Research Fellow at the University of Edinburgh on an EPSRC research project that concerned the development of an innovative system that provided language-impaired children with the ability to tell novel jokes.

He will gives talk about experience working on poetry generation, an exciting and challenging instance of computational linguistic creativity. Poetry generation is an extremely difficult problem that requires intelligence, world and linguistic knowledge, and creativity. Many different AI methods have been applied to this problem, ranging from evolutionary algorithms, constraint logic programming, case-based reasoning, and natural language generation. He will first introduce a model of poetry generation as a state space search problem, where a goal state is a text that satisfies the three properties of meaningfulness, grammaticality, and poeticness. Such a model requires a rich representation of various linguistic aspects, such as phonetics, morphology, syntax, and semantics, and an architecture that allows a system to simultaneously reason with all of these aspects and how they interact with each other. Several research works will be presented that have focused on different aspects, namely metre, rhyme, semantics, and topicality. Sample output will be presented, as well as the results of some Turing Test-style evaluations.

Peer-review under responsibility of organizing committee of the International Conference on Computer Science and Computational Intelligence (ICCSCI 2015)
doi:10.1016/j.procs.2015.07.330